DONEY, D. L.¹, and R. J. HECKER², ¹USDA, Agricultural Research Service, 1307 North 18th Street, Fargo, ND 58105, and ²USDA, Agricultural Research Service, Retired, Ft. Collins, CO 80526. - <u>USDA/ARS sugarbeet</u> releases.

It wasn't until the 1920s, due to the catastrophic losses caused by the curly top virus, that the USDA became significantly involved in sugarbeet breeding. Early efforts were located at Salt Lake City, UT and Riverside, CA. Additional breeding stations were added at Salinas, CA, Beltsville, MD, Ft. Collins, CO, East Lansing, MI and Fargo, ND. Smog forced the relocation of the Riverside station to Salinas, CA in the 1960s. The Salt Lake City station was transferred to Logan, UT in 1961; and it was closed in 1983. Breeding at Beltsville, MD was discontinued following the retirement of Gerald Coe in the mid 1980s. The first USDA releases were for curly top resistance, however, the division of breeding responsibilities among USDA breeders has been in response to disease problems, generally related to specific areas. Additional efforts have focused on bolting resistance, cytoplasmic male sterility, O-type maintainers, high combining ability for sugar and root yield, smooth roots, and integration of germplasm from wild sources. The development of monogerm and cytoplasmic male sterile lines by USDA breeders have been landmark achievements for the industry and are of world wide importance. Early releases (cultivar or hybrid) were for commercial use, however, recent efforts have been directed toward parental lines and/or enhanced germplasm. Prior to 1955, releases were shared with industry with little documentation. Between 1956 and 1970, releases were released to the Beet Sugar Development Foundation and published in the Sugarbeet Research Report (Blue Book). Since 1971, an official ARS release document, signed by all involved agencies, has been distributed to all interested parties. Most have been registered in Crop Science and many deposited in the National Seed Storage Lab (NSSL) at Ft. Collins. Since 1987, releases registered in Crop Science have been deposited in NSSL, received a permanent identification number (PI) and included in the GRIN database. All releases deposited in NSSL have been catalogued in GRIN. A listing of all releases (834) along with codes, citations, and limited descriptions has been prepared. While it is difficult to measure the impact USDA/ARS sugarbeet releases have had on industry, it is obvious that they are a major factor in the survival and stability of the sugarbeet industry.